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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,099	11/20/2003	Michael Carson	60680-1818	1098
1678	7590	05/07/2007		
MARSHALL & MELHORN FOUR SEAGATE, EIGHT FLOOR TOLEDO, OH 43604			EXAMINER SHARP, JEFFREY ANDREW	
			ART UNIT 3677	PAPER NUMBER
			MAIL DATE 05/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No. .

10/707,099

Applicant(s)

CARSON, MICHAEL

Examiner

Jeffrey Sharp

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 8-10, 12, 14, 15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 14, 15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 8-10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*. See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

[1] This action is responsive to Applicant's remarks/amendment filed on 05 February 2007 with regard to the Official Office action mailed on 01 December 2007.

Status of Claims

[2] Claims 2-5, 8-10, 12, 14, 15, 17, and 18 are pending.

Response to Arguments/Remarks

[3] Claims 1-5, 11, and 15 were previously rejected under 35 U.S.C. 102(b) as being anticipated by Gosling US-2,340,466.

Claims 1-5, 8-12, 14, and 15 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Norwood US-RE14,969 in view of AAPA.

Applicant has amended the foregoing claims such that the above rejections are withdrawn by the Examiner. Consequently, upon further consideration, a new ground(s) of rejection necessitated by amendment is made below.

New Grounds of Rejection

Claim Rejections - 35 USC § 102

[4] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[5] Claims 2-5, 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wright US-3,144,256.

In short, and when the claims are given their broadest reasonable interpretation, Wright teaches a piston ring (13) both alone and in combination with a piston groove (10) having boundaries, and surrounding cylinder, said piston ring comprising generally parallel upper (21) and lower (19a) surfaces, as well as inner and outer peripheral faces, the lower surface comprising a generally hook-shaped groove (24a), the outer peripheral face (18a) being generally tapered radially outwardly to an edge such that it contacts the cylinder wall (11) and intersects with the hook-shaped groove (24a), and a projection (17 or 18) defining a ledge which is located on the outer peripheral face (18a) and extends radially outwardly a distance *less* than said edge defined by the intersection of the tapered outer peripheral face and hook-shaped groove (refer to ghost line in Figure 2 for relative radial distances). A gap (20) is generally defined between the projection and said lower surface edge, and said piston ring defines a seal.

Examiner notes that the term "generally" has been interpreted broadly such that less than exactness is required to satisfy the claim limitation.

Allowable Subject Matter

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[6] In view of Applicant's amendment/remarks filed on 05 February 2007, claims 8-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

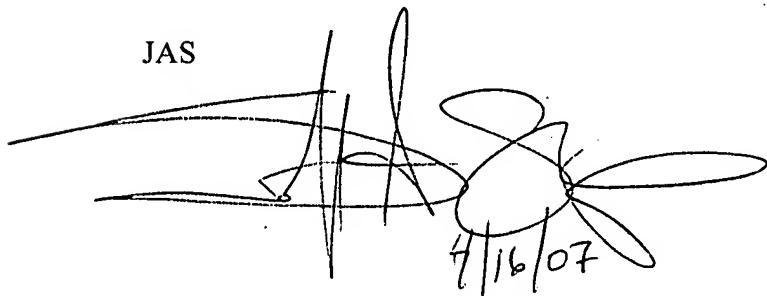
[7] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows: US-3,563,442 to Kretchman.

[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

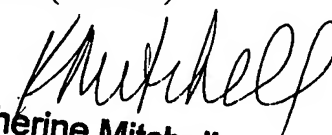
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS



Handwritten signature and date 4/16/07



Katherine Mitchell
Primary Examiner